WHAT IS CLAIMED IS:

1. A method of demosaicing a mosaiced image comprising:

receiving said mosaiced image, said mosaiced image being a representation of a scene of interest; and

processing said mosaiced image using a demosaicing operator on blocks of said mosaiced image to derive a representation of a demosaiced image, said demosaicing operator incorporating a frequency-based transformation operator to take into account a subsequent frequency-based compression process.

2. The method of claim 1 wherein said demosaicing operator used in said processing of said mosaiced image includes a color space conversion operator for converting from an original color space to a different color space.

3. The method of claim 2 wherein said demosaicing operator used in said processing of said mosaiced image includes said color space conversion operator for converting from an *RGB* color space to a Yc_rc_b color space.

4. The method of claim 1 wherein said processing of said mosaiced image includes interpolating said mosaiced image using said demosaicing operator, said demosaicing operator being derived by defining selected coefficients of transformation-related coefficients as being equal to zero.

5. The method of claim 4 wherein said selected coefficients are higher frequency components than remaining coefficients of said transformation-related coefficients.

6. The method of claim 1 wherein said processing of said mosaiced image includes interpolating said mosaiced image using said demosaicing operator, said demosaicing operator being derived by defining transformation-related coefficients as having a predefined probability distribution.

7. The method of claim 6 wherein said demosaicing operator is derived using the Bayesian rule.

8. The method of claim 6 wherein said predefined probability distribution is a Normal distribution.

9. The method of claim 1 wherein said frequency-based transformation operator is a DCT-based transformation operator.

10. The method of claim 1 wherein said frequency-based transformation operator is a wavelet-based transformation operator.

11. The method of claim 1 wherein said representation of said demosaiced image includes one of (a) a plurality of image pixel values, and (b) a plurality of transformed coefficients.

12. The method of claim 1 wherein said demosaicing operator and said frequency-based transformation operator are matrices.

13. A method of processing a mosaiced image comprising:

receiving said mosaiced image, said mosaiced image being a representation of a scene of interest;

demosaicing said mosaiced image using a demosaicing operator to produce a representation of a demosaiced image, said demosaicing operator incorporating a frequency-based transformation operator; and

compressing said representation of said demosaiced image using a frequency-based compression scheme.

14. The method of claim 13 wherein said demosaicing operator used in said demosaicing of said mosaiced image includes a color space conversion operator for converting from an original color space to a different color space.

15. The method of claim 14 wherein said demosaicing operator used in said demosaicing of said mosaiced image includes said color space conversion operator for converting from an *RGB* color space to a Yc_rc_b color space.

16. The method of claim 13 further comprising generating said demosaicing operator, including defining transformation-related coefficients that are associated with said compressing of said demosaiced image.

17. The method of claim 16 wherein said defining of said transformation-related coefficients includes defining selected coefficients of said transformation-related coefficients as being equal to zero.

18. The method of claim 17 wherein said selected coefficients are higher frequency components than remaining coefficients of said transformation-related coefficients.

19. The method of claim 16 wherein said defining of said transformation-related coefficients includes defining said transformation-related coefficients as having a predefined probability distribution.

20. The method of claim 19 wherein said generating of said demosaicing operator includes applying the Bayesian rule to derive said demosaicing operator.

21. The method of claim 13 wherein said frequency-based transformation operator is a DCT-based transformation operator, and wherein said frequency-based compression scheme is a DCT-based compression scheme.

22. The method of claim 13 wherein said frequency-based transformation operator is a wavelet-based transformation operator, and wherein said frequency-based compression scheme is a wavelet-based compression scheme.

23. The method of claim 13 wherein said representation of said demosaiced image includes one of (a) a plurality of image pixel values, and (b) a plurality of transformed coefficients.

24. A system for processing a mosaiced image comprising:

means for demosaicing said mosaiced image to produce a representation of a demosaiced image using a demosaicing operator, said demosaicing operator incorporating a frequency-based transformation operator; and

means for compressing said representation of said demosaiced image to produce a compressed image file, said compressing means configured to perform a frequency-based compression process.

25. The system of claim 24 wherein said demosaicing operator used by said demosaicing means includes a color space conversion operator for converting to a Yc_rc_b color space.

26. The system of claim 24 wherein said demosaicing operator is derived by defining transformation-related coefficients that are associated with said frequency-based compression process performed by said compressing means.

27. The system of claim 26 wherein said demosaicing operator is derived by defining selected coefficients of said transformation-related coefficients as being equal to zero.

28. The system of claim 26 wherein said demosaicing operator is derived by defining said transformation-related coefficients as having a predefined probability distribution.

29. The system of claim 24 wherein said demosaicing means and said compressing means are embodied in an application specific integrated circuit.

30. The system of claim 24 wherein said frequency-based transformation operator is a DCT-based transformation operator, and wherein said frequency-based compression process is a DCT-based compression process.

31. The system of claim 24 wherein said frequency-based transformation operator is a wavelet-based transformation operator, and wherein said frequency-based compression process is a wavelet-based compression process.

32. The system of claim 24 wherein said representation of said demosaiced image includes one of (a) a plurality of image pixel values, and (b) a plurality of transformed coefficients.

33. The method of claim 24 wherein said demosaicing operator and said frequency-based transformation operator are matrices.